

2022 NASA CMS Science Team Meeting Summary

September 26 – 28, 2022

AGU Conference Center, Washington DC & Virtual

From September 26 – 28, 2022 the NASA Carbon Monitoring System (CMS) Science Team Meeting took place in a hybrid format, with in person attendance at the AGU Conference Center in Washington, DC. The meeting consisted of two major parts: Applications Workshop (Sept. 26) and Science Team Meeting (Sept. 27 & 28). The goals of the meeting included: update on NASA programmatic goals, stakeholder engagement, presentation of CMS Results (2018 and 2020 projects), advance and share progress of working groups and synthesis efforts, and discussion of science team activities for 2022-2023. In-person invitees included: PIs (or delegate) plus 1-2 additional Science Team Members of projects from the 2018 and 2020 selections, stakeholders identified to be working with the projects, DAAC representatives, and CMS management and support. All other science team members and stakeholders were invited to attend virtually. The meeting had 142 registrants, with 84 in-person and 58 virtual participants. Attendees included 51 Science Team members, 33 stakeholders, and 59 other project participants. Early career participation included 1 undergraduate student, 10 graduate students, 16 postdocs, and 34 researchers <10 years post terminal degree.

Day 1 provided a welcome from HQ and CMS leadership, an overview of CMS application efforts, and featured a series of panel discussions with stakeholders on themes of The Role of Remote Sensing & CMS Science in COP27, Biomass, Atmospheric Flux, Oceans & Wet Carbon, and Agency/Interagency Priorities on Carbon Monitoring. Days 2-3 focused on science results, working groups & synthesis efforts, and discussion of science team activities for the year ahead. Science Team Leaders George Hurtt highlighted results from the [Phase Two Report](#), which synthesized results from 79 projects, 498 publications, and >125 specific recommendations. Presentations and discussions during the meeting focused on the importance of scientific data to inform policy, the need for broad global coverage with local accuracy, challenges of measuring lateral/vertical transfer and transport, incorporating nitrogen into carbon cycle analyses, and the emerging demands for understanding and meeting the requirements of carbon markets.

Overall, it was clear that the context and approach for CMS continues to be important and unique, with the emphasis on advancing both state of the art science based on NASA's emerging capabilities together with concrete stakeholder engagement and application.

George Hurtt, Science Team Leader

Peter Griffith, Lead, Carbon Cycle & Ecosystems Office

(Group photo below)

